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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/329,321	06/10/1999	MARI KORKEA-AHO	017.36935X00	7967

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ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON, VA 22209

EXAMINER
THOMPSON, MARC D

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/329,321	KORKEA-AHO
Examiner	**Art Unit**
Marc Thompson	2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Mar 23, 2001* .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-36* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

MDT

DETAILED ACTION

1. This application has been examined.

2. Claims 1-36 are pending.

Priority

3. No claim for priority has been made in this application.

4. The effective filing date for the subject matter defined in the pending claims in this application is 6/10/1999.

Drawings

5. This application has been filed with formal drawings which have been approved by the Draftsperson, and the Examiner contends the drawings are acceptable for examination purposes.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

7. Claims 1-5, 7, 13-17, 20, 25-29, and 32 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by DeLorme (U.S. Patent Number 5,848,373), hereinafter referred to as DeLorme.

8. DeLorme disclosed a portable computing device, with an optionally coupled GPS location unit, which acted to output various types of mapping materials which correlated information using locational coordinates for indication or incorporation on the map(s). See Abstract, Column 3, Lines 56-67, Column 4, Lines 21-38, Column 7, Line 40 through Column 8, Line 65, and Column 9, Line 56 through Column 11, Line 5. The incorporation of HTML and HTTP as Internet transports and standardized data delivery format including remote database querying, information addressing, and dynamic output generation provided selective filtering of gathered information for display to a requesting client user. Thus, the breadth of the claimed invention lends itself to complete anticipation in light of this reference. A detailed mapping of DeLorme to the claimed invention follows:

a. *A storage which stores location information in corresponding relation to each of plurality of geographical points*, was taught by DeLorme, inter alia, in Column 13, Lines 5-30, and Column 16, Line 46 through Column 17, Line 48.

b. *Location information provides information concerning said geographical point*, was taught by DeLorme, inter alia, in Column 16, Line 46 through Column 17, Line 48.

c. *Storage and retrieval means, responsive to a storage and retrieval request including positioning information, for storing or retrieving location information concerning a*

geographical point corresponding to positioning information, was taught by DeLorme, inter alia, in Column 17, Lines 24-37, Column 21, Lines 32-40, and Column 22, Lines 35-65.

d. *Storage and retrieval request including positioning information is transmitted to collaborative location server by a mobile terminal*, was taught by DeLorme, inter alia, in Column 22, Lines 35-65, and Column 24, Lines 11-23.

e. *Positioning information included in storage and retrieval request transmitted by mobile terminal indicates a geographical position of mobile terminal*, was taught by DeLorme, inter alia, in Column 17, Lines 49-64.

f. *Positioning information is supplied by a positioning system*, was taught by DeLorme, inter alia, in Column 17, Lines 49-64.

g. *Storage and retrieval request transmitted by a terminal*, was taught by DeLorme, inter alia, in Column 22, Lines 50-65.

h. *Positioning information is input by a terminal user*, was taught by DeLorme, inter alia, in Column 21, Lines 32-40.

i. *Virtual electronic document providing information corresponding to the geographical point*, was taught by DeLorme, inter alia, in Column 29, Lines 5-48.

9. Thus, since the all the limitations of the claimed invention as set forth in claims 1-5, 7, 13-17, 20, 25-29, and 32 were expressly disclosed by DeLorme, claims 1-5, 7, 13-17, 20, 25-29, and 32 are rejected.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phelan et al. (Patent Number WO 97/07467), hereinafter referred to as Phelan, in view of Potmesil ("Maps alive: Viewing Geospatial Information on the WWW", Computer Networks and ISDN systems 29, 1997), hereinafter referred to as Potmesil, further in view of what would have been obvious to one of ordinary skill in the art at the time the invention was made.

12. Phelan disclosed a combined map and location information providing service available to mobile (handheld or laptop) computing units, optionally equipped with GPS to isolate current client terminal position, resulting in a system which queried database(s) and returned pertinent information to a requesting client user. See, inter alia, Abstract, Page 2, Line 30 through Page 3, Line 33. The system was further equipped with well known prior art HTML enabled information transport and display specifications. See, inter alia, Page 1, Line 26 through Page 2, Line 6.

13. While Phelan disclosed the invention substantially as claimed, Phelan did not specifically disclose the actual storage of locational information received from a client terminal. Worth noting is that the claims allude to this functionality, but never actually recite it. See, for instance, claim 1, lines 8-10, where "storage and retrieval means....for storing or retrieving location

information" do not require both storage and retrieval functionality; either/or meets the claim. However, in the context of the claimed invention and specification, this functionality is assumed. Phelan disclosed multiple databases containing geographically located data, including description, location, classification, and detailing information about points of interest on a map based interface. Thus, it was clear that this information was stored in digital form, and any artisan would realize this information was not random, and must have been a result of some form of storage, compilation, and indexing means, seemingly omitted from the teachings of Phelan. That is, Phelan remained silent as to the specifics of information storage, how the information was input into the database(s), and the specific equipment and/or methodology required to result in the system as described. Thus, an ordinary artisan would have been motivated to search the related portable terminal, web-based mapping and information delivery systems to find systems which fully describe the collection, posting, insertion, and indexing of the information within the databases which were utilized by Phelan.

In the same art of coordinating information with geographical locations, Potmesil disclosed the ability for client terminals to post geographically indexed information to databases used in a system which supplies information upon demand to geographically filtering requesting clients. See inter alia, Section 1, Page 1327, and Section 2.3, Page 1330. Thus, given that the ordinary artisan understands how to construct functional web browsers which routinely accessed and manipulated information within database(s), the incorporation of the general teaching(s) of associating client user input with specific points on a given coordinate system was realized.

Lastly, the incorporation of specifically identified fields, for example in claim 6, would have been obvious to one of ordinary skill in the art at the time the invention was made, since the teachings of Phelan and Potmesil directly alluded to use of such stored information in regular operation of the system. Database fields including position/geographical point information, ID and title/classification information, access rights for specified classes of users, (hyper)linked addressing information, date of creation information, etc., were well within the skill of one with ordinary knowledge in the field, and the result of processing of these fields was present in the combined teachings. Of course, the storage of all information came at a price: the consumption of memory. Given that the disclosed document, information, and map servers were little more than huge storage devices, it was a matter of design choice to incorporate these specific database fields. Of course, the more information which was available, the more versatile a searching system became. Thus, it would have been obvious to incorporate the various recited database fields set forth in the claim limitations, simply to provide more information for more versatility in filtering pertinent information.

Thus, the combination of Phelan, Potmesil, and the knowledge within scope of one with ordinary skill in the art at the time the invention was made would have been obvious, resulting in a geographical locational mapping system, fully functional in a wide-area network environment using HTML and HTTP, which supplied and gathered information related directly to geographical points for storage and filtering on remote network databases.

A detailed mapping of the claims to the prior art follows:

a. *A storage which stores location information in corresponding relation to each of plurality of geographical points*, was taught by Phelan, inter alia, in Page 4, Lines 4-13, and was taught by Potmesil in, inter alia, Section 2.2, Page 1330.

b. *Location information provides information concerning said geographical point*, was taught by Phelan in, inter alia, Page 4, Lines 27-30, and was taught by Potmesil in, inter alia, Section 2.2, Page 1330.

c. *Storage and retrieval means, responsive to a storage and retrieval request including positioning information, for storing or retrieving location information concerning a geographical point corresponding to positioning information*, was taught by Phelan in, inter alia, Page 5, Lines 1-36, and was taught by Potmesil in, inter alia, Sections 2.2 through 2.4, Pages 1330-1332.

d. *Storage and retrieval request including positioning information is transmitted to collaborative location server by a mobile terminal*, was taught by Phelan in, inter alia, Page 5, Lines 1-36, Page 10, Lines 10-23, and Page 13, Lines 3-18, and was taught by Potmesil in Section 1, Page 1328.

e. *Positioning information included in storage and retrieval request transmitted by mobile terminal indicates a geographical position of mobile terminal*, was taught by Phelan in, inter alia, Page 6, Line 34 through Page 7, Line 9, and Page 10, Lines 10-23, and was taught by Potmesil in Sections 2.3-2.4, Pages 1330-1332.

f. *Positioning information is supplied by a positioning system*, was taught by Phelan in Page 13, Line 28 through Page 14, Line 34.

g. *Storage and retrieval request transmitted by a terminal*, was taught by Phelan in, inter alia, Page 13, Lines 3-31, and was taught by Potmesil in, inter alia, Section 1, Pages 1327-1328, and Section 3.3, Pages 1333-1334

h. *Positioning information is input by a terminal user*, was taught by Phelan in, inter alia, Page 14, Lines 19-27, and Page 16, Lines 3-29, and was taught by Potmesil in, inter alia, Section 1, Pages 1327-1329.

i. *Location information of geographical point includes*:

i. *Position information of geographical point, ID information including a geographical point name, Title information of location information, Type of geographical point/location information, Owner of location information, Access rights of users for location information, Comments of a creator information, Link information for linking other information, Date of creation information, and Expiration date information*, were either expressly mentioned/described by the combination of Phelan and Potmesil, or would have been obvious to incorporate and utilize as further informational filters, as explained above.

j. *Virtual electronic document providing information corresponding to the geographical point*, and,

k. *Virtual electronic document is a web page*, was taught by Phelan, inter alia, in Page 11, Lines 24-35, and was taught by Potmesil, inter alia, in Section 3.3.5, Pages 1335-1337.

Both teachings were riddled with WAN, Internet, WWW, HTML, and HTTP conforming standards.

l. *Web page is linked to other [web] pages*, was taught by Phelan in Page 12, Lines 10-14, and was taught by Potmesil in Section 1, Pages 1327-1329, as well as being inherent in a hyperlinking browsing system. This "linking" was the purpose such a system and method of information delivery and transfer was invented and implemented.

m. *Web page is linked to other web pages on same server or other network accessible server*, was taught by Phelan, inter alia, in Page 6, Lines 24-33, and was taught by Potmesil, inter alia, in Sections 1 and 2, Pages 1327-1332.

Since all the claimed limitations set forth in the presented claims were either expressly described in the combined prior art of record, or within the scope of what would have been obvious to one of ordinary skill in the art at the time the invention was made, claims 1-36 are rejected.

14. Claims 6, 8-10, 11-12, 18-19, 21-24, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLorme as detailed above, further in view of what would have been obvious to one of ordinary skill in the art at the time the invention was made.

15. DeLorme disclosed the invention substantially as claimed as detailed in the above rejection. DeLorme failed to specifically disclose each and every locational object database field used when storing and subsequently filtering stored information for output display. However, a

number of these fields were specifically disclosed, and suggestion for incorporation of "a lengthy document or extensive database inside of [the] standard [loc/object] data structure." See Column 28, Line 19 through Column 29, Line 48, and Column 30, Lines 3-20. Further, DeLorme failed to specifically disclose the use of hypertext markup language (HTML), although DeLorme specifically mentioned "linking" information to other information and to avatars (inter alia, Column 29, Lines 5-23), as well as combining text, graphics, and database querying of internal and external database(s) (inter alia, Column 30, Lines 3-20). An ordinary artisan in the computer arts would have been well aware of the global Internet, which has been growing exponentially since 1995 in both users and available services. The global Internet was notoriously well known to implement hypertext markup language (HTML) for information formatting on a typical Internet "browser", and hypertext transfer protocol (HTTP) for actual network transport of HTML and other types of digital data. HTML was indeed created for this particular situation; the sharing of network stored information using addressing and the incorporation of various types of information into formatted documents, HTML documents (web pages). Thus, it would have obvious to an ordinary artisan to use HTML in the system of DeLorme in order to provide a mechanism for retrieving, formatting, and displaying the client requested information in a typical network browser, as suggested by DeLorme in Column 26, Lines 15-30. Thus,

a. *Location information of geographical point includes*:

i. *Position information of geographical point, ID information including a geographical point name, Title information of location information, Type of geographical point/location information, Owner of location information, Access rights of users for location information, Comments of a creator information, Link information for linking other information, Date of creation information, and Expiration date information*, would have been obvious to an ordinary artisan in view of DeLorme, Column 30, Lines 3-20. The association of the location object with information directly related to the object comes directly at the cost of database memory storage, whether that space was local or remote to the object storage. These database fields associated with a particular locational object were a matter of design choice, and one which would increase the "richness" of the locational object associated information. That is, more related data resulted in more filtering options, and more location object specific information.

b. *Virtual electronic document is a web page*, would have been inherent in a system which utilized HTML. As outlined above, the use of HTML would have been obvious to an ordinary artisan working with the DeLorme system in order to share, compile, and display the client requested information in a formatted fashion, additionally providing dynamic generation of the HTML documents (web pages) with relevant, filtered information.

c. *Web page is linked to other [web] pages*, was included with the incorporation of HTML into the DeLorme system detailed in Column 29, Lines 5-23. The intended purpose of HTML was known to incorporate "linking" of stored, related information to other HTML

documents by using document addresses. Linking together web pages (HTML documents) was an inherent function of the well known, and widely implemented HTML specification.

d. *Web page is linked to other web pages on same server or other network accessible server*, would have resulted through the use of HTML, and the disclosed operation of the DeLorme system in, inter alia, Column 30, Lines 3-20. Again, this was a known, widely implemented feature of HTML, inherent in any system utilizing this particular markup language.

Since the invention as claimed would have been obvious to the ordinary artisan at the time the invention was made in view of DeLorme and the widely implemented use of HTML for document storage, document formatting, and linking of related, specified documents, claims 6, 8-10, 11-12, 18-19, 21-24, and 30-31 are rejected.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Bouve et al. (U.S. Patent Number 5,682,525) disclosed filtering information according to locational coordinates.

b. DeHond (U.S. Patent Number 5,737,533) disclosed a virtual reality scene generator using a client server network configuration with locational data.

c. Sotiroff et al. (U.S. Patent Number 5,852,810) disclosed multiple database information filtering for geographical location data over the world wide web.

d. Dunworth et al. (U.S. Patent Number 5,930,474) disclosed an Internet organizer for accessing and filtering geographically and topically based information.

e. Musk et al. (U.S. Patent Number 5,944,769) disclosed a network service integrating services directories with a map database through a single web site portal.

f. Takagi (U.S. Patent Number 6,107,961) disclosed a client server system providing a map display system using coordinate information and overlays directly related to the rendered map portion.

g. Obradovich et al. (U.S. Patent Number 6,148,261) disclosed sending and receiving locational information filtered through use of database queries, further equipped to return results in response to GPS location identification.

h. Phelan (U.S. Patent Number 6,240,360) disclosed overlaying additional location information onto a map image to display details of locational services/businesses using geographical coordinate data.

i. Sklar (U.S. Patent Number 6,243,094) disclosed the grouping of network stored locational records for location coordinate filtering.

j. Hirono (U.S. Patent Number 6,263,343) disclosed the linking of map overlay data related to geographical locations specified by coordinates on a map.

k. Fano (U.S. Patent Number 6,317,718) disclosed a PDA and GPS system using information filtering and database queries to display locational information as a map to a client user.

l. Woo (U.S. Patent Number 6,336,074) disclosed a hypertext driven PDF map displaying system using GPS geographical location techniques to display information local to a client device.

m. Chan et al. (U.S. Patent Number 6,381,603) disclosed information filtering using geographical coordinates and GPS coordinate input.

n. Yamada et al. ("Map-based Information Mediation on the Web with Float Coordinate System", IEEE International Conference on Systems, Man, and Cybernetics, 1999; IEEE SMC '99 Conference Proceedings.) disclosed the integration of locality information from a plurality of service providers into an interactive map interface.

o. Clementini et al. ("Browsing in geographic databases: an object-oriented approach", Proceedings of the 1990 IEEE Workshop on Visual Languages, 1990) disclosed an object oriented methodology of arranging geographical information in such a way as to enable hierarchical assembly of information, efficient filtering, graphical representation of locality information, and multimedia inclusion.

p. Shin et al. ("IGWeL: Interactive and geographical web site locator", ACM 36th annual Southeast Regional Conference Proceedings, 1998) disclosed an interactive geographical web site locator.

17. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marc Thompson whose telephone number is (703) 308-6750. The Examiner can normally be reached on Monday-Friday from 9am to 4pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Rinehart, can be reached at (703) 305-4815.

The fax phone numbers for the organization where this application is assigned are as follows:

(703) 746-7238	(After Final Communications only)
(703) 746-7239	(Official Communications)
(703) 746-7240	(for Official Status Inquiries, Draft Communications only)

Inquiries of a general nature relating to the general status of this application or proceeding should be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900, or Customer Service for Technology Center 2100 at (703) 306-5631.

MDT

Marc D. Thompson
Patent Examiner
Art Unit 2152

MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100